



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT Application of: )  
Hongyong ZHANG et al. ) Group Unit: 2811  
Serial No. 10/642,305 ) Examiner: Douglas W. Owens  
Filed: August 18, 2003 ) Date: June 1, 2006  
For: THIN-FILM TRANSISTOR )

**INFORMATION DISCLOSURE STATEMENT**

Mail Stop RCE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure as set forth in 37 C.F.R. §1.56, Applicants hereby submit the following information in conformance with 37 C.F.R. §§ 1.97 and 1.98. Pursuant to 37 C.F.R. § 1.98, a copy of each of the documents cited is enclosed.

The documents are being submitted within three (3) months of the filing of this application or entry into the national stage of this application, or before the first Office Action on the merits, whichever is later, therefore no fee or certification is required under 37 C.F.R. § 1.97(b).

Applicants have filed Information Disclosure Statements on March 30, 2005; August 12, 2005; September 16, 2005; and February 3, 2006 to submit information from a pending litigation, namely, Case No. CV 04-4783 TJX (AJW). The litigation involves U.S. Patent No. 6,177,302 and U.S. Patent No. 6,566,175 which are in the same family as co-pending application Serial No. 10/408,891. The '891 application is not in the same family as the instant application. Further, the litigation involves U.S. Patent No. 5,532,291 which is not in the same family as the instant application. Moreover, the litigation involves U.S. Patent Nos. 5,313,075 and 6,607,947 which are in the same family as the instant application, as previously noted.

In the Information Disclosure Statement filed February 3, 2006, Applicants filed "TOPPOLY OPTOELECTRONICS CORP.'S RESPONSES TO PLAINTIFF'S SECOND SET OF INTERROGATORIES NOS. 3-7" dated 11/28/2005. This RESPONSE included lists of documents attached thereto in Exhibits B and C thereof. Applicants hereby submit

copies of the listed documents. Please note that JP 62-104117 is not cited since it was cited in the Information Disclosure Statement filed October 24, 2004

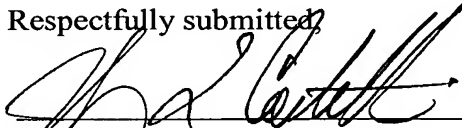
Applicants wish to note that Toppoly particularly identified some of the documents listed on the attached PTO-1449 against the family patents of the instant application. Specifically, the articles to Mimura et al. (Feb. 1989); Ohwada et al. (Sept. 1989); Masumo et al. (1989); Wright et al. (May 1989); Wright et al. (Aug. 1989); Young & Gill (1989); Serikawa et al. (Sept. 1989); Malhi et al. (1985); Aritome et al. (Sept. 28, 1987); Zaima et al. (Feb. 8, 1988); Georgiev (1985); Perchard et al. (1989); Parks et al. (1988); Liu et al. (Nov. 10, 1988); Veprek et al. (Aug. 1987); Takenaka et al. (Dec. 1990); Sameshima et al. (Oct. 1989) and JP 01-268064 were identified by Toppoly against the family patents of the instant application.

It is requested that the accompanying PTO-1449 be considered and made of record in the above-identified application. To assist the Examiner, the documents are listed on the attached form PTO-1449. It is respectfully requested that an Examiner initial a copy of this form be returned to the undersigned.

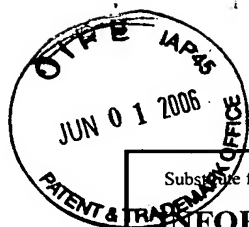
The Commissioner is hereby authorized to charge any fees connected with this filing which may be required now, or credit any overpayment to Deposit Account No. 19-2380.

Respectfully submitted,

By:

  
\_\_\_\_\_  
Jeffrey L. Costellia  
Registration No. 35,483

NIXON PEABODY LLP  
Suite 900  
401 9<sup>th</sup> Street, N.W.  
Washington, DC 20004-2128  
Telephone: (202) 585-8000



Substitute for form 1449A/PTO			<b>Complete if Known</b>		
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (use as many sheets as necessary)			Application Number	10/642,305	
			Filing Date	08/18/2003	
			First Named Inventor	Hongyong ZHANG et al.	
			Art Unit	2811	
			Examiner Name	Douglas Owens	
Sheet	1	of	3	Attorney Docket Number	740756-2646

U.S. PATENT DOCUMENTS					
Examiner Initials <sup>*</sup>	Cite No. <sup>1</sup>	U.S. Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (if known)			
		US-4,059,461	11/22/1977	Fan et al.	
		US-4,229,502	10/21/1980	Wu et al.	
		US-4,309,225	01/05/1982	Fan et al.	
		US-4,785,962	11/22/1988	Toshima	
		US-4,814,292	03/21/1989	Sasaki et al.	
		US-4,951,601	08/28/1990	Maydan et al.	
		US-5,108,843	04/28/1992	Ohtaka et al.	
		US-			

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Application of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
		JP	01-268064 A	10/25/1989	Hashimoto et al.		FULL
		JP	60-105216	06/10/1985	Shimizu et al.		FULL

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials <sup>*</sup>	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Mimura et al., "High Performance Low-Temperature Poly-Si n-Channel TFT's for LCD," <u>IEEE Transactions on Electron Devices</u> , Vol. 36, No. 2, pp. 351-359 (Feb. 1989)	
		Ohwada, et al., "Peripheral Circuit Integrated Poly-Si TFT LCD with Gray Scale Representation", <u>IEEE Transactions on Electron Devices</u> , Vol. 36, No. 9, pp. 1923-1928 (Sept. 1989)	
		Masumo et al., "Low Temperature Fabrication of Poly-Si TFT by Laser Induced Crystallization of a-Si," <u>Journal of Non-Crystalline Solids</u> , Vol. 115, pp. 147-149 (1989)	
		Wright et al., "The Effect of Fluorine in Silicon Dioxide Gate Dielectrics," <u>IEEE Transactions on Electron Devices</u> , Vol. 36, No. 5, pp. 879-889 (May 1989)	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449A/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				<i>Complete if Known</i>			
				Application Number		10/642,305	
				Filing Date		08/18/2003	
				First Named Inventor		Hongyong ZHANG et al.	
				Art Unit		2811	
				Examiner Name		Douglas Owens	
Sheet	2	of	3	Attorney Docket Number		740756-2646	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T <sup>2</sup>
		Wright et al., "Hot-Electron Immunity of SiO <sub>2</sub> Dielectrics with Fluorine Incorporation", <u>IEEE Electron Device Letters</u> , Vol. 10, No. 8, pp. 347-348 (Aug. 1989)		
		Young & Gill, "Mobile Ion Instabilities in Polycrystalline Silicon Thin Film Transistors", <u>Applied Surface Science</u> , Vol. 39, pp. 364-367 (1989)		
		Serikawa et al., "Low-Temperature Fabrication of High-Mobility Poly-Si TFT's for Large-Area LCD's", <u>IEEE Transactions on Electron Devices</u> , Vol. 36, No. 9, pp. 1929-1933 (Sept. 1989)		
		Malhi et al., "Characteristics and Three-Dimensional Integration of MOSFET's in Small-Grain LPCVD Polycrystalline Silicon", <u>IEEE Transactions on Electron Devices</u> , Vol. ED-32, No. 2, pp. 258-281 (Feb. 1985)		
		Aritome et al., "Low-temperature nitridation of fluorinated silicon dioxide films in ammonia gas", <u>Applied Physics Letters</u> , Vol. 51, No. 13, pp. 981-983 (Sept. 28, 1987)		
		Zaima et al., "Effects of fluorine ion implantation on metal-oxide-semiconductor devices of silicon-on-sapphire", <u>Applied Physics Letters</u> , Vol. 52, No. 6, pp. 459-461 (Feb. 8, 1988)		
		Georgiev, "Electrophysical Properties of Plasma SiO <sub>2</sub> Prepared from SiCl <sub>4</sub> and N <sub>2</sub> O", <u>Bulgarian Journal of Physics</u> , Vol. 12, No. 5, pp. 501-506 (1985)		
		Perchard et al., "Characterization of a multiple-step in-situ plasma enhanced chemical vapor deposition (PECVD) tetraethylorthosilicate (TEOS) planarization scheme for submicron manufacturing", <u>SPIE</u> , Vol. 1188, Multichamber and In-Situ Processing of Electronic, pp. 75-85 (1989)		
		Parks et al., "The Chemical Interface of Microwave Plasma Deposited SiO <sub>2</sub> Films", <u>Materials Research Society</u> , Vol. 105, pp. 133-138 (1988)		
		Liu et al., "Raman Characterisation of stress in Recrystallised Silicon-On Insulator", <u>Electronics Letters</u> , Vol. 24, No. 23, pp. 1420-1422 (Nov. 10, 1988)		
		Veprek et al., "Effect of Grain Boundaries on the Raman Spectra, Optical Absorption, and Elastic Light Scattering in Nanometer-Sized Crystalline Silicon", <u>Physical Review B</u> , Vol. 36, pp. 3344-3350 (Aug. 1987)		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				<b>Complete if Known</b>			
				Application Number		10/642,305	
				Filing Date		08/18/2003	
				First Named Inventor		Hongyong ZHANG et al.	
				Art Unit		2811	
				Examiner Name		Douglas Owens	
Sheet	3	Of	3	Attorney Docket Number		740756-2646	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Takenaka et al., "High Mobility Poly-Si Thin Film Transistors Using Solid Phase Crystallized a-Si Films Deposited by Plasma-Enhanced Chemical Vapor Deposition, <u>Japanese J. of Applied Physics</u> , Vol. 29, No. 12, pp. L2380-L2383(Dec. 1990)	
		Sameshima et al., "XeCl Excimer Laser Annealing Used to Fabricate Poly-Si TFT's", <u>Japanese J. of Applied Physics</u> , Vol. 28, No. 10, pp. 1789-1793 (Oct. 1989)	
		Madan et al., "Use of PECVD System in Thin Film Technology", <u>Workshop on Industrial Plasma Applications</u> , pp. 1-11 (Sept. 1989)	
		Lucovsky et al., "Formation of Silicon-Based Hetrostructures in Multichamber Integrated-Processing Thin-Film Deposition System", <u>Multichamber and In-Situ Processing of Electronic Materials</u> , Vol. 1188, pp. 140-150 (1989)	
		Sameshima et al., "XeCl Excimer Annealing Used in the Fabrication of Poly-Si TFT's", <u>IEEE Electron Device Letters</u> , Vol. EDL-7, No. 5, pp. 276-278 (May 1986)	
		Sera et al., "High Performance TFT's Fabricated by XeCl Excimer Laser Annealing of Hydrogenated Amorphous-Silicon Film, <u>IEEE Transactions on Electron Devices</u> , Vol. 36, No. 12, pp. 2868-2872 (Dec. 1989)	
		S. Wolf & R.N. Tauber, <u>Silicon Processing for the VLSI Era-Process Technology</u> , pp. 164-175 (1986)	
		U.S. Patent Application No. 06/944,803, Mayden et al., filed December 19, 1986 (Abandoned)(Parent of U.S. Patent No. 4,951,601)	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.